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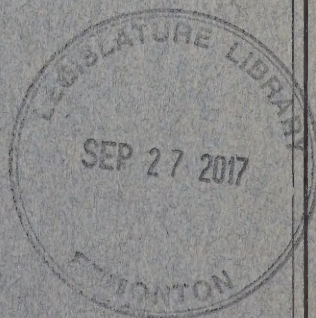
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ANNUAL REPORT
OF THE
Department of Public Works
OF THE
PROVINCE OF ALBERTA
1924

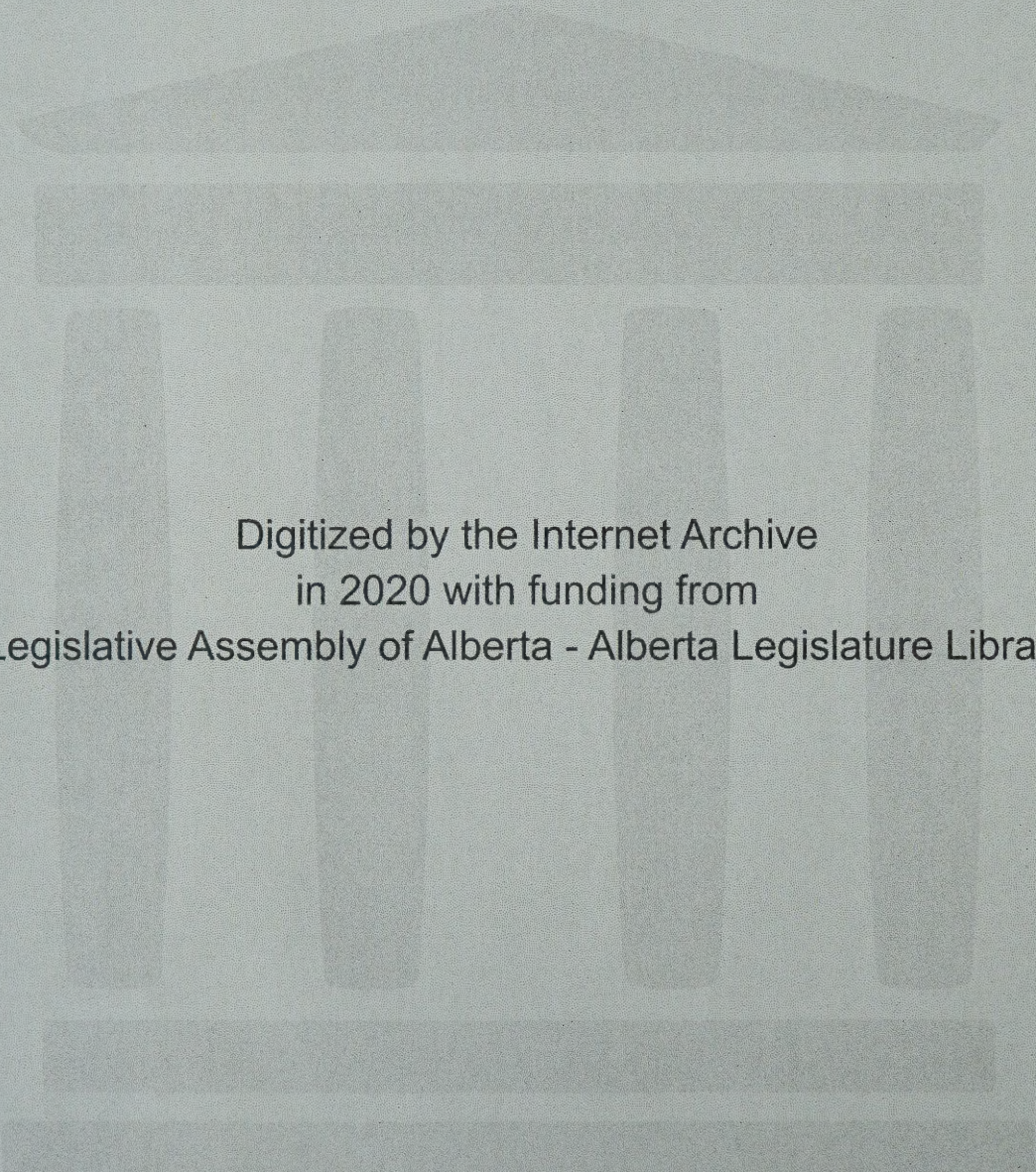
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EDMONTON:

PRINTED BY J. W. JEFFERY, KING'S PRINTER
1925

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ANNUAL REPORT

OF THE

Department of Public Works

OF THE

PROVINCE OF ALBERTA

1924

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EDMONTON:
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EDMONTON, March 9, 1925.

To His Honour

ROBERT GEORGE BRETT,

Lieutenant Governor of the Province of Alberta.

May it please Your Honour:

The undersigned has the honour to submit herewith the Report of the Department of Public Works for the year ending December 31, 1924.

Respectfully submitted,

ALEX. ROSS,

Minister of Public Works.

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REPORT

OF THE

DEPUTY MINISTER OF PUBLIC WORKS

EDMONTON, March 9, 1925.

HON. ALEX. ROSS,
Minister of Public Works.

SIR,—I have the honour to submit herewith the Report of the Department of Public Works for the year 1924.

FERRY SERVICE

During the year 1924 the Department of Public Works operated fifty-eight ferries; in addition three Government-owned ferries were operated by the people who used them, making in all sixty-one Government ferries in operation during the season. It was found necessary to construct five new scows during the year.

Owing to the early freeze-up the season for ferry operation in some instances was forty days shorter than the previous year, for which reason the entire appropriation for ferry service was not required. The unexpended balance amounted to approximately \$5,500.00.

A complete list of ferries operated showing the expenditure for operation and maintenance and the construction of new scows is submitted herewith.

MARKET AND LOCAL ROADS

The construction and maintenance of market and local roads was carried out by the municipal authorities along lines similar to those followed during the two previous years. A complete list of moneys paid out in this connection is submitted herewith.

In the unorganized territory throughout the Province, in addition to the work paid for from money voted by the Legislature for market and local road improvement, road construction and maintenance was carried out and paid for from Improvement District Trust Account, but as the Public Accounts of the Province contain a complete report of this expenditure details are not included in the report of the Public Works Department.

It has become apparent from year to year that the municipal authorities have not at all times followed the most economical methods in the construction and maintenance of their roads, and with the thought in mind that their work might be carried on more economically you suggested at the last convention of the

Municipal Districts Association that a committee might be appointed by the convention to make a study of the problems arising out of road construction within the municipal districts, your department to lay before the committee when they meet all available information pertaining to road construction and maintenance so that the committee might report their findings to the next municipal convention.

GOOD ROADS BOARD

I submit herewith the report from Dr. K. A. Clark, Honorary Secretary, dealing with the activities of the Board during the year. The experimental work carried out by Dr. Clark on road materials will be dealt with fully in the Annual Report of the Scientific and Industrial Research Council of Alberta for 1924.

MAIN HIGHWAYS

The construction programme on the main highways system of the Province was embarked upon as provided for by The Main Highways Loan Act, 1924, and very satisfactory results were obtained. The work, with few exceptions, was done by tender and contract. In each instance a call for tenders was advertised in the local press and tenders were publicly opened, and contracts were awarded to the lowest bidder who had a reasonable chance to successfully carry out the work. Supervision of all operations was conducted by qualified engineers.

I submit herewith the report of the Highway Commissioner, together with full details of both construction and maintenance of main highways.

BRIDGES

The year 1924 was one of the most successful years in bridge construction we have had for some time. All steel bridges authorized and for which material was ordered were completed before the end of the year, and with the exception of nine, all timber bridges were also completed. The reason for our success along these lines is largely accounted for by the prompt shipment of material received. Timber was shipped as required and did not necessitate any delay, steel was in every instance delivered slightly before the date agreed upon. I am pleased to report that in districts north and west of Edmonton all bridge material used was obtained locally.

I submit herewith the report of the Bridge Engineer containing description of the more important bridges dealt with in a complete list of bridges built and repaired, with the amount expended on each.

SURVEYS

Two District Surveyors with parties were engaged in field work during the season. Their duties consist of the survey of road diversions where these are necessary for the purpose of avoiding physical obstructions such as swamps, lakes, and hills of excessive grades.

These surveys are practically confined to such cases arising in unorganized districts, as those lying within the limits of municipal districts are handled by the local authorities who engage their own surveyors. In an occasional case where a survey may be made by one of our surveyors in a municipal district the municipal authorities pay the cost of same.

In addition surveys covering location of main highways whether within municipal districts or otherwise are made by the departmental surveyors.

I submit herewith the report of the Director of Surveys giving full details of work done by this branch of your department.

ARCHITECTURAL BRANCH

I submit herewith the report of the Superintendent of Buildings and that of the Superintendent of Power Plants dealing with the activities of the Architectural Branch of your department.

ACCOUNTANT'S AND CORRESPONDENCE BRANCHES

The reports of the Accountant and Chief Correspondence Clerk of your department showing details of work done under their direction are submitted herewith.

PUBLIC INSTITUTIONS

Reports from the Wardens of the Gaols at Fort Saskatchewan and Lethbridge giving full details as to the administration of these Institutions are submitted herewith.

Respectfully submitted,

J. D. ROBERTSON,
Deputy Minister.

DEPARTMENT OF PUBLIC WORKS

FERRIES CONSTRUCTION 1924

File No.	Location—	Construction	Total Cost
2503	N. Saskatchewan River at Desjarlais	\$ 1,890.04	\$ 1,890.04
2504	Athabasca R. at Holmes Crossing	1,844.36	1,844.36
2518	N. Sask. R. at 4th Mer. Purchase of Fract. Legal Sub. Div. 1 & 8, Sec. 25-53-1-4 from C. P. R.	494.20	494.20
2526	N. Sask. R. at Hopkins	346.74	346.74
2527	Red Deer R. at Hutton	64.48	64.48
2533	N. Sask. R. at Lea Park	473.73	473.73
2542	S. Sask. R. at Bow Island	2,018.58	2,018.58
2775	N. Sask. R. at Waskatenau, Ferry Scow and equipment taken over from Waskatenau Ferry Board	1,009.88	1,009.88
2787	N. Sask. R. at Forbesville	1,459.52	1,459.52
2790	McLeod R. at Rosevear	126.99	126.99
2793	N. Sask. R. at Warspite, grading approaches to new ferry site	1,069.81	1,069.81
2797	Peace R. at Fort Vermilion	73.29	73.29
2500	Ferries General		629.34
Total			<u>\$11,500.96</u>

FERRIES MAINTENANCE 1924

File No.	Location—	Operation	Maintenance	Total
2502	N. Sask. at Brosseau	\$ 560.00	\$ 196.99	\$ 756.99
2503	N. Sask. at Desjarlais	409.49	152.67	562.16
2504	Athabasca R. at Holmes Cross.	600.00	328.90	928.90
2507	Bow R., South of Cluny		2.40	2.40
2508	Red Deer R. at Dorothy	442.66	149.97	592.63
2513	N. Sask. R. at Pakan	422.50	390.54	813.04
2520	Athabasca R. at Athabasca	490.00	419.85	909.85
2521	Red Deer R. West of Rumsey	509.42	379.26	888.68
2523	N. Sask. R. at Shandro	444.16	388.10	832.26
2526	N. Sask. R. at Hopkins	475.00	152.54	627.54
2527	Red Deer R. at Hutton	653.00	100.52	753.52
2528	N. Sask. R. at Rocky Mt. H. ...	570.00	190.16	760.16
2532	Over Narrows at Lac Ste. Anne	466.58	162.01	628.59
2533	N. Sask. R. at Lea Park	492.50	96.43	588.93
2535	N. Sask. R. at Eldorena	434.00	221.24	655.24
2536	Pembina at Sunnibend		31.50	31.50
2537	Pembina at Wright's Crossing	431.65	422.83	854.48
2538	N. Sask. R. at Lomora's Cross.	306.65	72.40	379.05
2541	Peace River at Dunvegan	772.30	778.89	1,551.19
2542	S. Sask. R. at Bow Island	544.00	30.99	574.99
2543	N. Sask. R., N. of Manville ...	422.40	66.66	489.06
2544	N. Sask. R. at Genesee	431.74	199.13	630.87
2549	Red Deer R. at Steveville	600.00	927.72	1,527.72
2551	Smoky R. at Goodwin Crossing	705.96	80.15	786.11
2554	Bow River at Riverbow	600.00	116.19	716.19
2558	Bow River at Bredin Crossing .	672.15	379.72	1,051.87
2560	Red Deer R. at Bleriot Crossing	485.00	330.77	815.77
2561	N. Sask. R. at Berrymoor	537.50	206.33	743.83
2563	Red Deer R. at Finnegan Cross.	640.00	300.65	940.65
2564	Pembina R. at Matthews Cross.	422.00	55.95	477.95
2565	N. Sask. R. at Mooswa	512.50	93.20	605.70
2566	Pembina R. at Lunnford	537.50	65.22	602.72
2574	McLeod at Allendale Crossing	414.00	69.38	483.38
2577	S. Sask. R., N.W. of Idlesleigh		60.06	60.06
2581	N. Sask. R. at Vinca	416.00	545.61	961.61
2584	Pembina R. at Manola	436.33	27.93	464.26
2587	McLeod R. at McLeod Valley .	558.16	243.59	801.75
2589	Red Deer R. at Jenner	624.00	209.84	833.84
2590	Red Deer R. at Gregory Ford .	640.00	135.41	775.41
2591	N. Sask. R. at Elk Point	549.33	104.11	653.44

File No.	Location—	Operation	Maintenance	Total
2595	Pembina R. in Sec. 6-57-6-5.	\$.....	\$ 28.00	\$ 28.00
2596	Red Deer R. West of Morrin ..	518.50	300.73	819.23
2597	Over Narrows of Sandy Lake ..	.....	51.65	51.65
2598	Pembina R. at Dapp	447.98	66.36	514.34
2599	Athabasca R. at Smith	490.00	262.53	752.53
2760	Bow R. South of Crowfoot ...	841.96	317.08	1,159.04
2770	Pembina R. South of Fawcett ..	87.35	123.40	210.75
2775	N. Sask. R. at Waskatenau...	318.55	377.34	695.89
2777	Athabasca R. at Christmas Crk.	527.31	114.01	641.32
2779	McLeod R. at Mahaska	436.33	145.57	581.90
2780	Red Deer R. at Cavendish ...	.....	25.00	25.00
2785	Red Deer R. at Atlee	600.00	1,225.50	1,825.50
2787	N. Sask. R. at Forbesville ...	452.65	91.01	543.66
2788	S. Sask. R. S. of Empress ...	634.66	503.84	1,138.50
2790	McLeod R. at Rosevear	512.50	25.50	538.00
2793	N. Sask. R. at Warspite	390.00	170.71	560.71
2795	Red Deer at Buffalo Crossing	730.30	902.01	1,632.31
2796	Bow R. at McKinnon's Crossing	.....	145.50	145.50
2797	Peace R. at Fort Vermilion ..	780.00	799.05	1,579.05
2799	N. Sask. R. at Heinsburg	452.65	57.11	509.76
2800	Red Deer R. at Rosedale	565.31	603.82	1,169.13
2803	Red Deer R. at Niddries' Cross.	263.22	403.36	666.58
2805	Bow River at Bow Slope	729.03	1,636.51	2,365.54
2808	Athabasca R. at Whitecourt ..	388.06	96.75	484.81
2810	Bow R. South of Gleichen....	126.20	49.05	175.25
2518	N. Sask. R. at 4th Mer. (50% of cost of operation.....	1,628.39	.....	1,628.39
2500	Ferries General .....	.....	.....	7,731.36
Total				<u>\$56,287.99</u>

STATEMENT SHOWING THE AMOUNT EACH MUNICIPALITY AND
IMPROVEMENT DISTRICT SUCCEEDED IN SECURING DURING
1924 FROM THE MONIES VOTED FROM INCOME
FOR MARKET AND LOCAL ROADS

M.D. or I.D. Dist.	No.	Amount Earned	M.D. or I.D. Dist.	No.	Amount Earned
I. D.	1	\$ 35.25	I. D.	67	\$1,437.60
I. D.	2	912.90	I. D.	68	598.00
I. D.	3	714.90	M. D.	69	1,273.75
I. D.	4	712.10	M. D.	70	1,753.25
I. D.	5	1,189.90	I. D.	71	272.54
I. D.	6	1,029.17	I. D.	91	1,135.52
I. D.	7	833.75	M. D.	92	1,311.00
I. D.	8	1,052.08	I. D.	93	1,046.53
I. D.	9	424.02	M. D.	96	210.00
M. D.	10	871.05	I. D.	97	1,145.75
I. D.	31	797.25	M. D.	98	1,473.75
I. D.	32	1,119.18	M. D.	99	1,400.00
M. D.	33	589.87	I. D.	100	1,697.20
M. D.	34	1,193.00	I. D.	101	398.97
I. D.	35	624.70	I. D.	121	1,119.83
M. D.	36	1,368.63	I. D.	122	1,186.32
M. D.	37	1,169.50	M. D.	123	57.00
I. D.	38	1,363.03	I. D.	124	13.60
M. D.	39	1,615.00	I. D.	125	817.75
M. D.	40	540.70	I. D.	126	1,056.70
I. D.	61	690.95	M. D.	127	1,191.00
I. D.	62	834.38	M. D.	128	1,510.50
I. D.	63	947.05	M. D.	129	1,968.10
M. D.	64	1,997.17	M. D.	130	1,171.63
M. D.	65	1,639.00	I. D.	131	277.90
I. D.	66	1,344.65	I. D.	151	1,074.27

DEPARTMENT OF PUBLIC WORKS

M.D. or I.D. Dist.	No.	Amount Earned	M.D. or I.D. Dist.	No.	Amount Earned
I. D.	152	\$ 769.60	I. D.	333	\$1,465.40
M. D.	153	1,330.00	M. D.	334	2,344.50
I. D.	154	387.25	M. D.	335	1,081.50
I. D.	155	634.85	M. D.	336	1,692.00
I. D.	156	1,210.63	M. D.	337	1,530.00
M. D.	157	1,321.50	M. D.	338	2,092.80
M. D.	158	1,604.95	M. D.	339	1,694.00
M. D.	159	1,896.00	M. D.	340	3,196.30
I. D.	160	640.75	M. D.	341	1,920.00
I. D.	161	175.50	M. D.	342	2,798.80
I. D.	181	1,156.72	M. D.	343	1,355.25
I. D.	182	1,384.97	M. D.	361	1,690.00
M. D.	183	1,159.37	M. D.	362	1,820.00
M. D.	185	1,226.89	M. D.	363	1,700.00
M. D.	186	1,021.17	M. D.	364	2,225.00
M. D.	189	1,935.99	M. D.	365	1,911.00
M. D.	190	1,733.83	M. D.	366	1,498.50
M. D.	191	1,857.00	M. D.	367	1,954.50
I. D.	211	520.18	M. D.	371	1,595.00
I. D.	212	1,869.14	M. D.	391	1,650.00
I. D.	213	1,248.84	M. D.	392	1,500.00
M. D.	214	1,657.50	M. D.	393	1,590.00
M. D.	215	842.00	M. D.	394	1,630.00
I. D.	216	1,071.24	M. D.	395	1,650.00
I. D.	217	1,237.21	M. D.	396	1,700.00
M. D.	218	1,525.50	M. D.	397	1,625.00
M. D.	219	1,498.00	M. D.	398	2,127.00
M. D.	220	1,426.50	M. D.	399	2,616.00
M. D.	221	1,146.76	M. D.	400	1,891.50
I. D.	222	1,853.45	M. D.	401	2,698.50
M. D.	241	1,252.50	I. D.	403	1,436.70
M. D.	242	1,600.50	M. D.	421	1,890.00
M. D.	243	1,800.50	M. D.	422	1,720.00
M. D.	244	1,297.50	M. D.	423	1,750.00
M. D.	245	1,306.50	M. D.	424	1,080.00
I. D.	246	831.50	M. D.	425	1,680.00
I. D.	247	1,506.98	M. D.	426	1,800.00
M. D.	248	1,557.00	M. D.	427	1,856.00
M. D.	249	1,707.00	M. D.	428	1,158.00
M. D.	250	1,692.00	M. D.	429	2,077.50
I. D.	251	1,264.70	M. D.	430	1,764.00
I. D.	252	1,022.66	M. D.	431	1,987.50
M. D.	272	1,525.50	M. D.	451	1,700.00
M. D.	273	1,090.00	M. D.	452	1,593.50
M. D.	274	1,300.50	M. D.	453	1,665.00
M. D.	275	1,198.50	M. D.	454	1,943.00
M. D.	277	1,255.50	M. D.	455	1,700.00
M. D.	278	1,873.50	M. D.	456	1,750.00
M. D.	279	1,746.00	M. D.	457	1,725.00
M. D.	280	2,008.50	M. D.	458	3,109.00
M. D.	281	1,723.50	M. D.	459	1,300.00
I. D.	282	1,432.56	M. D.	460	1,300.00
M. D.	301	1,270.50	I. D.	461	1,344.61
M. D.	302	1,248.00	M. D.	481	1,983.27
M. D.	303	1,390.50	M. D.	482	1,852.50
M. D.	304	1,375.50	M. D.	483	1,719.00
M. D.	305	1,396.50	M. D.	484	1,965.00
M. D.	306	1,680.00	M. D.	485	1,500.00
M. D.	307	1,770.00	M. D.	486	1,400.00
M. D.	308	1,872.00	M. D.	487	2,300.00
M. D.	309	1,874.50	M. D.	488	2,030.00
M. D.	310	1,858.50	M. D.	489	2,030.00
M. D.	311	1,914.00	M. D.	490	2,028.00
M. D.	312	1,946.75	I. D.	491	1,246.09
I. D.	331	947.26	M. D.	511	2,218.92
I. D.	332	1,376.65	M. D.	512	1,902.00

M.D. or I.D. Dist.	No.	Amount Earned	M.D. or I.D. Dist.	No.	Amount Earned
M. D.	513	\$1,839.00	I. D.	640	\$1,440.27
M. D.	514	1,983.00	I. D.	641	2,123.05
M. D.	515	2,030.00	I. D.	665	2,247.22
M. D.	516	2,175.00	I. D.	666	1,499.75
M. D.	517	1,690.00	I. D.	667	2,022.17
M. D.	518	1,888.50	M. D.	668	966.00
M. D.	519	1,981.50	I. D.	695	440.82
M. D.	520	1,885.50	I. D.	696	325.25
M. D.	521	1,437.00	I. D.	697	1,308.50
M. D.	522	986.40	I. D.	699	350.00
I. D.	523	913.20	I. D.	706	393.00
I. D.	524	1,767.00	I. D.	707	825.30
I. D.	525	523.17	I. D.	709	49.00
I. D.	526	372.25	I. D.	729	737.62
I. D.	527	976.50	I. D.	730	85.00
I. D.	541	1,147.38	I. D.	731	45.50
M. D.	542	1,518.84	I. D.	732	900.50
M. D.	543	2,019.00	I. D.	733	273.75
M. D.	544	1,380.00	I. D.	735	386.25
M. D.	545	1,725.00	I. D.	737	34.00
M. D.	546	2,297.75	I. D.	738	931.25
M. D.	547	1,862.00	M. D.	739	2,550.00
M. D.	548	2,500.00	M. D.	740	2,300.00
M. D.	549	1,900.00	I. D.	741	1,927.10
M. D.	550	2,439.00	I. D.	742	594.00
M. D.	551	3,177.00	I. D.	764	1,560.70
M. D.	552	2,060.00	I. D.	765	569.50
I. D.	553	1,530.70	I. D.	766	1,025.10
I. D.	554	1,287.40	I. D.	769	600.00
I. D.	555	2,041.50	I. D.	770	1,527.95
I. D.	556	625.25	I. D.	771	2,061.15
I. D.	558	186.85	I. D.	772	1,266.86
M. D.	572	1,982.00	I. D.	794	56.00
M. D.	573	2,194.50	I. D.	795	61.50
M. D.	574	1,206.00	I. D.	796	3,589.30
M. D.	575	2,857.50	I. D.	797	450.20
M. D.	576	2,300.00	I. D.	800	549.00
M. D.	577	2,500.00	I. D.	819	110.00
M. D.	578	2,790.00	I. D.	825	673.25
M. D.	579	2,400.00	I. D.	826	1,449.37
M. D.	580	2,440.00	I. D.	828	1,336.00
M. D.	581	3,853.00	M. D.	829	1,807.55
M. D.	582	3,857.30	I. D.	830	326.00
I. D.	583	2,090.33	I. D.	831	351.10
I. D.	584	1,478.36	I. D.	843	271.27
I. D.	585	983.70	I. D.	855	769.50
I. D.	601	1,596.43	I. D.	857	2,400.00
I. D.	602	1,796.35	I. D.	858	2,811.40
I. D.	603	1,655.50	I. D.	859	366.10
I. D.	604	1,559.40	I. D.	886	1,123.10
M. D.	605	1,396.00	I. D.	887	1,537.10
I. D.	607	1,724.64	I. D.	916	186.00
M. D.	608	2,200.00	I. D.	917	629.50
M. D.	609	2,247.15	I. D.	1065	253.00
I. D.	610	2,092.72	I. D.	1094	271.50
I. D.	611	992.40	I. D.	1124	332.50
I. D.	612	204.50	I. D.	1234	4,115.17
I. D.	614	119.50	Total Expenditure in In-		
I. D.	615	330.20	dian Reserves during		
I. D.	631	1,354.16	1924		
I. D.	634	860.00			
I. D.	635	1,725.70			
I. D.	636	516.85			
M. D.	637	2,200.00			
M. D.	638	2,500.00			
I. D.	639	1,214.00			
			Total		
			\$444,234.40		
			Roads General		
			33,135.10		
			Total Exp. 1924 ..		
			\$477,369.50		

GOOD ROADS BOARD OF ALBERTA

EDMONTON, March 9, 1925.

J. D. ROBERTSON, ESQ.,
Deputy Minister of Public Works,
Edmonton, Alberta.

SIR,—

I have the honour to submit herewith the following report in connection with the Good Roads Board of Alberta, during the season 1924.

The position of Highway Commissioner made vacant by the resignation of Mr. H. G. Dimsdale in 1923 was filled early in 1924 by the appointment of Mr. C. A. Davidson. The personnel of the Board during 1924 was: C. A. Davidson, J. D. Robertson, John Gair and K. A. Clark.

Four meetings of the Good Roads Board were held during the year in the months of January, March, April and November. At these meetings the reports of the Highway Commissioner regarding location, type of work, estimated costs, etc., of main highway construction for the season were received and considered and action taken to aid in the prosecution of this work. Progress reports were also received as the work developed. Many points and problems concerning the main highway system—proposed additions, relocations, maintenance, and other matters — were brought before the Board, and were given the necessary consideration. The provincial appropriation for road grants to the districts were allocated, and plans were formulated and set in operation for the solution of the problem of the establishment of the main market road systems in the various districts.

The Board was unable, as a body, to arrange the inspection trips it had planned to make during 1924. But individual members found opportunity to get into various parts of the province where there were situations about which the Board wished personal knowledge. Phases of the road problems in the Peace River and the Edmonton-Peace River Highway were given special attention in this way.

The Good Roads Board views with a considerable amount of satisfaction the results of its own efforts during the year and the general improvement in the highway situation, in the bringing about of which it has played a part. The year 1924 has been characterized by real progress in the highway affairs of the province. The problem of main highway construction has been attacked in earnest and very substantial results obtained. The complicated problem of main market road establishment shows every indication of working out satisfactorily, and much of the

work toward this end has been accomplished. A real spirit of co-operation between the municipal districts and the provincial government is developing and spells better things for road improvement throughout the province. A general feeling that our highway affairs are entering a new and more advanced stage is growing, and all interests are settling down to better directed effort to gain real results.

Respectfully submitted,

K. A. CLARK,
*Honorary Secretary,
Good Roads Board of Alberta.*

MAIN HIGHWAYS CONSTRUCTION UNDER THE CANADA HIGHWAYS ACT

J. D. ROBERTSON, ESQ.,
Deputy Minister of Public Works,
Edmonton, Alberta.

SIR,—

I have the honour to submit report of operations on the main highway system of the Province for the year ending December 31, 1924, the work being performed under the agreement entered into between the Dominion Department of Railways and Canals, Ottawa, and the Minister of Public Works, Alberta, reference Order-in-Council 449-24, April 10, and The Canada Highways Act, Chapter 54, Statutes 1919.

Following upon the placement of our main highways under "Federal" Aid, project statements containing estimated costs of operations were prepared and forwarded to Ottawa for approval. The initial work of organization was heavy, involving the preparation of standard specifications and contract forms, the compiling of instructions to preliminary engineering and construction parties, and the obtaining of the necessary field information as a basis for the calling for tenders and awards of contract.

Owing to the shortness of the season, this work was of a highly intensive nature by reason of the necessity for having contracts let in sufficient time to assure completion of the work. The programme undertaken substantially followed the recommendations of the Good Roads Board with this exception, that in a few cases it was found necessary to have sections of short mileage extended to larger projects, in order to keep down additional engineering expense for the supervision of the work. In all, four hundred and twenty (420) miles of main highway was placed under contract for construction, in addition to which sixty-eight point four (68.4) miles of sand-clay and gravel surfacing was included in the programme.

The following schedule is submitted, showing particulars of contracts awarded during the season:

CLEARING						
Pro- ject.	Sec- tion.	Sub- Sec.	Location	Miles.	% Com- plete.	Contractor.
9	A.	1	Red Deer-Rky. Mt. House	14.5	100%	Cochrane & Schwarzbold
16	D.	1	Athabasca-Peace River	22.0	100%	F. W. Kresge
19	B.	1	Grande Prairie-P. Coupe	11.8	100%	F. W. Kresge
				48.3		

GRADING

Pro- ject.	Sec- tion.	Sub- Sec.	Location	Miles.	% Com- plete.	Contractor.
1	A.	1	Calgary-Airdrie	15.6	100%	H. G. McDonald & Co.
1	B.	1	Didsbury-Innisfail	4.0	80%	J. H. Hauser
1	B.	2	Didsbury-Innisfail	22.3	85%	W. A. Foreman
1	C.	1	Innisfail-Red Deer	7.1	80%	J. H. Hauser
1	D.	1	Red Deer-Wetaskiwin	3.0	100%	Perm. Const. Co.
1	E.	1	Wetaskiwin-Millet	15.5	100%	Perm. Const. Co.
2	E.	1	Frank Slide	1.3	100%	A. G. Creelman & Co.
2	D.	1	Lethbridge-Macleod	2.5	90%	Day Labour
2	E.	2	Crow's Nest Rev. (Lake)	0.5	100%	A. G. Creelman & Co.
2	E.	3	Coleman-Frank	4.8	60%	Day Labour
2	E.	5	Pincher-Lundbreck	15.5	75%	A. G. Creelman & Co.
3	A.	1	Calgary-Okotoks	21.6	100%	H. G. McDonald & Co.
3	A.	2	Okotoks-High River	13.9	100%	H. G. McDonald & Co.
4	B.	1	Brooks-Kininvie	26.8	90%	J. H. Hauser
5	A.	1	Calgary-Irricana	22.0	100%	H. G. McDonald & Co.
6	A.	1	Warner northerly	11.0	100%	Clinton L. Dodge
6	B.	1	Milk River northerly	5.7	85%	Clinton L. Dodge
7	A.	1	Calgary-Cochrane	15.8	100%	Ferdinand Goetz
7	B.	1	Cochrane-Radnor	11.9	100%	H. G. McDonald & Co.
7	C.	1	Radnor-3 miles W. Morley	10.0	100%	W. A. Foreman
11	B.	1	Castor-Coronation	13.5	75%	H. G. McDonald & Co.
11	C.	1	Erskine-Nevis	26.8	70%	R. J. Duncan
12	D.	1	Irma-Fabyan	9.4	100%	Williscroft & Williscroft
13	D.	1	Vermilion easterly	21.7	95%	G. H. Whitson
14	A.	1	Edmonton-Winterburn	4.6	80%	Day Labour
14	B.	1	Stony Plain-Wabamun	1.9	90%	Day Labour
14	C.	1	Entwistle-Evansburg	2.0	90%	H. G. McDonald & Co.
15	B.	1	Vimy-Athabasca	11.9	85%	H. G. McDonald & Co.
15	A.	1	Edmonton-Vimy	15.2	30%	Radford & Smith
16	D.	2	Athabasca-Peace River	8.9	75%	F. W. Kresge
18	A.	1	Dunvegan-Grande Prairie	7.9	60%	John Sutherland
19	B.	2	Grde. Prairie-Pouce Coupe	11.8	100%	F. W. Kresge
20	C.	1	St. Albert-Alta. Beach	5.0	90%	Day Labour

371.4

SURFACING

Pro- ject.	Sec- tion.	Sub- Type.	Location.	Miles.	% Com- plete.	Contractor.
1	B.	2-2 Gravel	Didsbury-Innisfail	4.0	20%	Smith, Peterson, Dodds & Dodds
1	D.	1 Clay & sand	Red Deer-Wetaskiwin	0.5	100%	T. W. Griffin
1	E.	1 Gravel & clay-sand	Wetaskiwin-Millet	7.5	80%	T. W. Griffin
2	E.	1 Shale	Frank Slide	1.3	100%	A. G. Creelman & Co.
3	A.	1 Gravel	Calgary-Okotoks	15.0	50%	G. B. Woods Cartage Co.
5	A.	1 Gravel	Calgary-Irricana	2.0	100%	H. G. McDonald & Co.
6	A.	1 Gravel	Warner northerly	2.0	50%	Clinton L. Dodge
7	A.	1 Gravel	Calgary-Cochrane	15.8	60%	Day Labour
7	B.	1 Gravel	Cochrane-Radnor	11.9	75%	H. G. McDonald & Co.
7	C.	1 Gravel	Radnor-3 Mls W. Morley	1.3	100%	W. A. Foreman
12	D.	1 Clay	Irma-Fabyan	0.5	100%	Williscroft & Williscroft
14	A.	1 Gravel	Edmonton-Winterburn	4.6	10%	J. B. McDonald & Son and E. I. Clarke
14	C.	1 Gravel	Entwistle-Evansburg	2.0	5%	H. G. McDonald & Co.

68.4



Above—Spencer Creek on the Calgary-Banff Highway, Project 7 B, 34 miles west of Calgary. This view is typical of main highway construction in Alberta during the past season, and shows the abandonment of the old location with its irregular and dangerous curvature and excessive gradient.

Below—Near Midnapore on the Calgary-Glacier Park Highway, Project 3 A. Section of newly completed gravel road showing treatment of roadway at curves. All the material in excess of $1\frac{1}{2}$ inches diameter is rejected for surfacing operations.



Above—Completed gravel surfacing under The Canada Highways Act on the Main Highway, near Midnapore.

Below—Revised location of Main Highway near Cochrane, showing protection at curves. Abandoned road on right.

The season's operations had a somewhat abrupt termination owing to a storm of several days' duration at the end of October. This had the effect of closing down our excavation work early in November, at which time several of our contracts had not been completed. Extensions of time for the completion of such unfinished work have been made, and no difficulty is anticipated in having this work performed simultaneously with the following season's programme.

Prices offered for all classes of construction were generally lower than anticipated, and the following is an analysis of average costs of operations under contract during the season:

Clearing	\$28.00	per acre
Grubbing	40.50	per acre
Earth excavation .....	.22	per cubic yard
Loose rock .....	.52	per cubic yard
Solid rock	1.54	per cubic yard
Overhaul .....	.05	per station yard
Rip-rap	2.80	per cubic yard

Surfacing:—

Stripping and oversize ..	21c	per cubic yard
Gravel	83c	per cubic yard
Clay	56c	per cubic yard
Haulage	67c	per cubic yard mile

Average actual cost per mile of earth road \$1,875.00

Average actual cost per mile of gravel surfacing—

1300 cubic yards per mile—cost \$2,535.00

Average cost of gravelled road per mile \$4,410.00

A nominal amount of day labour work was undertaken, approximating five per cent. of all construction. The decision to employ day labour in preference to contract was based upon conditions unfavourable to letting by contract, as follows:

PROJECT 14D.—Work undertaken for the purpose of correcting poor alignment throughout a length of twenty-four miles, most of the work entailing frequent moving of camp and offering by reason of light excavation quantity, little inducement to the contractor to bid at current prices being offered.

PROJECT 2D1.—No detours possible and heavy traffic interference which would seriously handicap contractor, combined with the necessity for extensive sidehill excavation to permit through traffic during construction.

PROJECT 14A.—Preparation of subgrade for gravel surfacing, insufficient quantity of excavation (approximately sixteen cubic yards per station) combined with such work as scattered brushing, removal and re-installation of old corrugated iron pipe, cleaning out intake and offtake ditches on which no estimated quantity could be given.

PROJECT 2E3.—Re-conditioning old roadbed, and removal of compacted irregular surface of road, involving an undetermined

able amount of scarifying, blasting of surface boulders and other work, which would normally be conducted by contractor under Force Account.

On this work, unit costs were as follows:

Earth excavation	\$.41
Loose rock .....	.88
Solid rock	1.93
Overhaul .....	.05

Surfacing: Day Labour:—

Stripping and oversize	\$.18 per cubic yard
Gravel .....	.65 per cubic yard
Clay	1.18 per cubic yard
Haulage .....	.54 per cubic yard mile

Construction engineering costs total seven and one half (7½%) per cent. of the cost of all operations.

All work undertaken throughout the season was inspected from time to time by Mr. Wm. Jackson, Inspecting Engineer for the Department of Railways and Canals, Ottawa, from whom we have received much valuable assistance in conducting our operations for the first time under agreement with the Dominion Government. Acting upon his recommendations, together with that of Mr. E. G. Carthy, Auditor for the Department of Railways and Canals, I have pleasure in reporting that the Federal Government has approved payment to the full amount of forty (40%) per cent. for our work conducted under agreement to November 15, of this year. To that date, therefore, the sum of \$210,585.93 has been earned under this season's construction. Application was made to the Department of Railways and Canals for a further audit to cover operations in the period November 16 to December 31 inclusive, and this having been granted, the Department was advised by the Dominion Travelling Auditor that should the Canada Highways Commission approve, the Province of Alberta will have earned forty (40%) per cent. of \$685,730.28, that is, \$274,292.11 on account of which we have already received \$210,585.93, leaving a further balance of \$63,706.18 to be paid on the season's work.

The amount of the Federal grant to the Province is \$1,477,810.00.

I attach hereto summary of expenditures on all projects under agreement upon which audit has been made by the Dominion Government's representative.

All of which is respectfully submitted,

Your obedient servant,

C. A. DAVIDSON,
Highway Commissioner.

Dated at Edmonton, February 9, 1925.

DEPARTMENT OF PUBLIC WORKS

STATEMENT No. 1, SHOWING EXPENDITURES UNDER THE CANADA HIGHWAYS ACT—JULY 7, 1919, TO DECEMBER 31, 1924.

Project	Location	Construction Engineer	Clearing & Grubbing	Grading	Culverts	Road Surfacing	Sundries	Total
3083-1A.1	Calgary-Edmonton	\$ 838.48	....	\$10,544.85	\$3,924.66	.....	\$263.95	\$15,571.94
3083-1B.1	Calgary-Edmonton	964.17	\$18.00	1,006.65	1,166.16	.....	.....	3,154.98
3083-1B.2	Calgary-Edmonton	1,498.24	....	7,218.00	5,990.86	\$989.98	.....	15,697.08
3083-1C.1	Calgary-Edmonton	1,338.83	31.50	3,651.22	2,846.06	.....	.....	7,867.61
3083-1D.1	Calgary-Edmonton	1,897.13	....	2,657.51	1,188.78	1,394.21	.....	7,087.63
3083-1E.1	Calgary-Edmonton	1,478.69	....	5,260.65	2,438.62	6,573.91	.....	15,751.87
3083-1E.2	Calgary-Edmonton	1,478.68	....	7,240.73	2,904.86	4,712.61	.....	16,336.88
3083-2E.1	Macleod-Crow's Nest	1,094.90	15.00	11,472.10	73.43	6,577.77	.....	19,233.20
3083-2D.1	Lethbridge-Macleod	1,349.68	....	36,325.67	2,828.08	1,659.01	375.94	42,538.38
3083-2E.2	Macleod-Crow's Nest	601.74	....	7,440.12	139.97	.....	.....	8,181.83
3083-2E.3	Macleod-Crow's Nest	619.81	....	14,164.16	3,338.33	.....	.....	18,122.30
3083-2E.5	Macleod-Crow's Nest	4,929.69	....	14,067.50	5,545.43	.....	.....	24,542.62
3083-3A.1	Calgary-U.S. Boundary	1,563.89	240.48	12,464.01	5,597.60	14,146.34	.....	34,012.32
3083-3A.2	Calgary-U.S. Boundary	1,542.98	....	8,300.34	5,539.20	.....	.....	15,382.52
3083-4B.1	Calgary-Medicine Hat	2,669.34	....	13,622.04	5,580.78	.....	.....	21,872.16
3083-5A.1	Calgary-Alsask	3,067.99	....	22,116.74	9,476.19	5,088.85	.....	39,749.77
3083-6A.1	Lethbridge-Coutts	1,300.59	....	11,341.26	4,261.67	3,929.95	.....	20,833.47
3083-6B.1	Lethbridge-Coutts	1,298.85	....	3,068.91	777.22	.....	.....	5,144.98
3083-7A.1	Calgary-Kananaskis	1,591.72	211.20	10,889.37	4,406.96	18,355.91	963.06	36,418.22
3083-7B.1	Calgary-Kananaskis	1,030.00	....	11,357.73	3,269.48	15,491.70	6,441.45	37,590.36
3083-7C.1	Calgary-Kananaskis	743.68	....	19,777.45	4,171.54	2,720.24	4,472.73	31,885.64
3083-9A.1	Red Deer-Rocky Mtn. House	944.60	4,854.80	3,670.90	3.96	.....	.....	9,474.26
3083-11B.1	Lacombe-Coronation	2,146.72	76.14	6,589.87	7,668.40	.....	.....	16,481.13
3083-11C.1	Lacombe-Coronation	3,032.43	....	13,889.91	13,209.43	.....	.....	30,131.36
3083-12D.1	Edmonton-Wainwright	3,136.24	618.48	10,487.91	2,595.66	1,281.15	.....	18,119.44
3083-13D.1	Edmonton-Lloydminster	4,082.56	275.46	27,510.88	7,797.53	.....	.....	39,666.43
3083-14A.1	Edmonton-Entwistle	200.40	139.12	3,787.28	149.78	6,000.37	.....	10,276.95
3083-14B.1	Edmonton-Entwistle	400.00	74.25	7,483.75	1,048.66	.....	.....	9,006.66
3083-14C.1	Edmonton-Entwistle	3,466.89	546.55	7,109.03	1,735.41	234.35	.....	13,092.23
3083-15A.1	Edmonton-Athabasca	1,593.73	1,883.25	3,269.25	1,904.38	.....	.....	8,650.61
3083-15B.1	Edmonton-Athabasca	1,861.60	1,540.08	20,775.40	14,850.10	.....	.....	39,006.68
3083-16D.1	Athabasca-Peace River	1,478.77	8,581.13	.....	.....	.....	.....	10,059.90
3083-16D.2	Athabasca-Peace River	1,583.48	1,829.29	5,991.33	4,074.93	.....	.....	13,479.03
3083-18A.1	Dunvegan-Grande Prairie	2,016.07	2,412.62	3,644.18	3,349.10	.....	.....	11,421.97
3083-19B.1	Grande Prairie-Pouce Coupe	2,128.12	4,101.67	9,578.09	4,732.87	.....	30.03	20,570.78
		\$60,970.69	\$27,449.02	\$357,753.88	\$138,536.09	\$89,156.35	\$12,547.16	\$686,413.19

SUMMARY OF CAPITAL EXPENDITURE ON ROAD CONSTRUCTION, 1924

Preliminary engineering	\$ 27,623.38
Federal aid	686,413.19
Federal aid not yet applied for, advertising, etc.....	10,458.16

Roads not included in the Federal Aid Programme:—

In 7-28-19-4	\$ 1,348.85	
Bet. Chipman and Ft. Sask.	1,004.98	
N. Bk. of Bow River at Calgary	2,837.64	
Bet. Maloy and La Corey	1,999.76	
Valhalla Centre—West	656.55	
Valhalla Centre—South	788.60	
Grimshaw and Whitemud	1,521.50	
Badheart Settlement and Sexsmith	2,026.70	
Knob Hill—Buck Lake Road	1,995.95	
Plamondon to Lac La Biche	500.00	
Saddle Lake—Lac La Biche Trail	988.80	
Onoway to Roydale	9,267.56	
Jarvie to Fawcett	2,963.19	
North of Boyle	8,313.64	
Cache One to Blueberry Mt.	974.63	
N. of 9, 10, 11, 12-60, 7-4	524.50	
N. Secs. 2 & 3 thro' Sec. 4-25-25-4...	110.17	
Onoway to Alta. Beach	14,093.49	
		51,916.01

General:—

Administration	\$26,918.04	
Good Roads Board	833.68	
Machinery, equipment and stock	38,891.70	
		66,643.42

TOTAL \$843,054.16

STATEMENT SHOWING THE EXPENDITURE FROM INCOME DURING THE YEAR 1924, FOR THE MAINTENANCE OF MAIN HIGHWAYS

Reference Number	Locations	Amount Expended
40.01	<i>Edmonton to Calgary—</i>	
	Sec. A. Calgary to Didsbury	\$3,099.12
	Sec. B. Didsbury to Innisfail	1,102.41
	Sec. C. Innisfail to Red Deer	978.95
	Sec. D. Red Deer to Ponoka	1,591.13
	Sec. E. Ponoka to Millet	1,167.47
	Sec. F. Millet to Edmonton	1,624.52
		\$9,563.60
40.02	<i>Calgary to Banff.....</i>	\$2,960.68
40.03	<i>Calgary to Medicine Hat—</i>	
	Sec. A. Calgary to Cluny	\$4,468.35
	Sec. B. Cluny to Kininvie	1,911.12
	Sec. C. Kininvie to Medicine Hat	756.10
		\$7,135.57
40.04	<i>Calgary to U. S. Boundary—</i>	
	Sec. A. Calgary to Stavely	\$5,639.50
	Sec. B. Stavely to Macleod	2,239.33
	Sec. C. Macleod to Boundary	2,196.68
		\$10,075.51

Reference Number	Locations	Amount Expended
40.05	<i>Walsh to Crow's Nest—</i>	
	Sec. A. Walsh to Medicine Hat	\$ 495.15
	Sec. B. Medicine Hat to Bow Island	1,936.17
	Sec. C. Bow Island to Lethbridge	4,102.18
	Sec. D. Lethbridge to Macleod	1,302.26
	Sec. E. Macleod to Crow's Nest	5,818.65
		<hr/>
		\$13,654.41
40.06	<i>Lethbridge to Coutts—</i>	
	Sec. A. Lethbridge to Warner	\$1,904.77
	Sec. B. Warner to Coutts	2,069.05
		<hr/>
		\$3,973.82
40.08	<i>Hanna to Viking—</i>	
	Sec. E. Hanna to Castor	\$ 647.12
	Sec. F. Castor to Killam	2,030.12
	Sec. G. Killam to Viking	794.45
		<hr/>
		\$3,471.69
40.09	<i>Calgary to Alsask—</i>	
	Sec. A. Calgary to Drumheller	\$3,740.44
	Sec. B. Drumheller to Youngstown	1,937.35
	Sec. C. Youngstown to Alsask	1,853.04
		<hr/>
		\$7,030.83
40.10	<i>Lacombe to Compeer—</i>	
	Sec. A. Lacombe to Nevis	\$1,109.66
	Sec. B. Nevis to Castor	1,923.52
	Sec. C. Castor to Compeer	2,654.94
		<hr/>
		\$5,688.12
40.11	<i>Wetaskiwin to Hayter—</i>	
	Sec. A. Wetaskiwin to Bittern Lake	\$ 709.60
	Sec. B. Bittern Lake to Daysland	1,783.67
	Sec. C. Daysland to Lougheed	1,653.34
	Sec. D. Lougheed to Hayter	4,074.81
		<hr/>
		\$8,221.42
40.12	<i>Edmonton to Butze—</i>	
	Sec. A. Edmonton to Tofield	\$5,759.92
	Sec. B. Tofield to Holden	2,842.37
	Sec. C. Holden to Kinsella	1,729.74
	Sec. D. Kinsella to Butze	1,989.66
		<hr/>
		\$12,321.69
40.13	<i>Edmonton to Lloydminster—</i>	
	Sec. A. Edmonton to Fort Saskatchewan	\$ 494.34
	Sec. B. Fort Saskatchewan to Chipman	1,369.23
	Sec. C. Chipman to Point W. of Range 11	2,416.37
	Sec. D. W. of Range 11 to Lloydminster	1,345.60
		<hr/>
		\$5,625.54
40.14	<i>Edmonton to Jasper Park—</i>	
	Sec. A. Edmonton to Entwistle	\$5,825.66
	Sec. B. Entwistle to West	3,749.82
		<hr/>
		\$9,575.48
40.15	<i>Edmonton to Athabasca</i>	\$ 245.41
40.16	<i>Edmonton to Holmes Crossing—</i>	
	Sec. A. Edmonton to Vimy	\$3,544.88
	Sec. B. Vimy to Holmes Crossing	4,728.12
		<hr/>
		\$8,273.00

Reference Number	Locations	Amount Expended
40.17	<i>Edmonton East through Beaver Hills</i>	\$3,161.16
40.18	<i>Grande Prairie to Pouce Coupe</i>	\$3,701.58
40.19	<i>Athabasca to Peace River—</i>	
	Sec. A. Athabasca to Smith	
	Sec. B. Smith to Grouard	
	Sec. C. Grouard to Peace River	\$ 96.95
40.20	<i>Red Deer to Rocky Mountain House</i>	\$2,102.37
40.21	<i>Peace River to Grande Prairie—</i>	
	Sec. A. Peace River to Dunvegan	\$ 968.29
	Sec. B. Dunvegan to Spirit River	555.19
	Sec. C. Spirit River to Grande Prairie	2,229.02
		<u>\$3,752.50</u>
Total		<u><u>\$120,631.33</u></u>

THE MAINTENANCE OF THE FOLLOWING ROADS

during 1924, although not included in the Main Highway System, was paid for under the authority of Section 30, Public Highways Act, out of monies voted from Income for Main Highway Maintenance.

Reference Number	Locations	Amount Expended
3626	Pincher Creek to Waterton Lakes	\$ 1,518.34
3641	Cardston to Waterton Lakes	2,885.97
3670	Bowness Road	311.20
5040	Pincher Creek to Burmis	15.60
6318	Lacombe to Gull Lake	803.65
11096	Between 3/4-25-2-5	179.92
5077	Stettler to Munson	314.70
11339	Stettler to Buffalo Lake	192.15
6349	Stettler to Donalda	136.17
11398	E. and S. of New Norway	191.70
4158	Tofield to Chipman	884.08
11398	From S.E. corner 18, 45-20-4, N. 5 miles	43.20
3631	St. Albert to Lac Ste. Anne	946.54
5048	N. 19 to 24, Tp. 52-1-5	91.20
12904	Drumheller to Rosedale	383.32
3895	20-2/3-5	133.90
4864	Steel Bridge near Caldwell to Waterton Lakes	967.70
10308	Between 29/30, 31/32-6-28-4	23.50
TOTAL		<u>\$10,022.84</u>

Maintenance Main Highways

40.00 General

Other Roads

Total of Vote 706B

\$120,631.33

15,697.44

10,022.84

\$146,351.61

BRIDGES

EDMONTON, February 18, 1925.

J. D. ROBERTSON, ESQ.,
Deputy Minister of Public Works,
 Edmonton, Alberta.

SIR,—

I have the honour to submit herewith report of Bridge work for the season ending December 31, 1924.

During the season we had 16 crews in the field—3 on steel and concrete work and 13 on timber bridges; practically all the work authorized during the season was completed.

Treated timber was used for reflooring a number of large steel bridges, and a number of small steel spans were erected on treated timber abutments, which will at least double the life of these bridges.

The prices on bridge material were practically the same as 1923. The following steel bridges were constructed:

- | | |
|--------------|---|
| Two 200-foot | Spans on concrete over St. Mary's River, Cardston, replacing old bridge. Road was straightened, and has one of the best river crossings in the Province at this location. |
| One 100-foot | Span over Belly River at Hill Springs. Bridge moved $\frac{1}{4}$ mile upstream to obtain better grades, on concrete foundation. |
| 400-foot | Steel trestle 110 feet high on concrete pedestals, over Six Mile Coulee, south of Lethbridge, replacing old railroad trestle. |
| One 80-foot | Span on concrete abutment over Mosquito Creek, north of Nanton on main highway. |
| One 80-foot | Span on concrete abutment over Dog Pound Creek, west of Didsbury. |
| One 60-foot | Span on concrete abutment over Frog Creek at Frog Lake. |
| One 50-foot | Girder span on concrete abutment over Gold Creek at Frank. |
| One 150-foot | Span on pile abutments over Battle River, north of Wainwright. |
| One 135-foot | Span on creosoted timber abutments over Little Red Deer River at Eagle Hill. |
| One 102-foot | Span from Oldman River erected in 25-6-30-4, on pile abutments. |
| One 80-foot | Span on pile abutments over Paddle River north of Sangudo. |
| One 80-foot | Span on pile abutments over Battle River, south of Rimbey. |

One	80-foot	Span on pile abutments over Burnt River at Roycroft.
One	80-foot	Span on pile abutments over Three Hill Creek, north of Kirkpatrick.
One	80-foot	Span on pile abutments over Horseguard Creek, north of Condor.
One	70-foot	Span on creosoted pile abutments over Rosebud River at Irricana.
One	65-foot	Span on timber abutments over Erickson Coulee, 17-1-12-4.
One	60-foot	Span on creosoted pile abutments over Dog Pound Creek, west of Crossfield.
One	60-foot	Span on pile abutments over Serviceberry Creek at Redlands.
One	60-foot	Span on pile abutments over Paddle River at Rochfort.
One	60-foot	Span on pile abutments over Three Hills Creek, west of Three Hills.
One	60-foot	Span on pile abutments over Battle River, southwest of Ponoka.
One	50-foot	Span on pile abutments over Wabash Creek, west of Westlock.
One	50-foot	Span on pile abutments over Horseguard Creek at Leslieville.
One	50-foot	Span on pile abutments, south of Stirling.
One	30-foot	Beam span on pile abutments, S. 6-39-5-5.

Work was also started on 3 150-foot spans over Red Deer River, west of Innisfail, and this bridge will be completed early in 1925.

There were 26 steel bridges and 357 timber bridges completed, 1 large steel culvert installed, and 185 bridges repaired, also 24 bridges and 2 concrete culverts constructed for main highways, making a total of 596 bridges dealt with during the year 1924.

Attached find statement showing the expenditure in various Municipal and Improvement Districts.

Your obedient servant,

N. W. MACPHERSON,
Bridge Engineer.

CONSTRUCTION AND RE-CONSTRUCTION OF BRIDGES, 1924

M. D. or I. D.	No. Timber Bridges	No. Steel Bridges	Expendi- ture
I. D. 3	1	..	\$ 400.81
I. D. 4	2	..	5,987.80
I. D. 9	..	1	48,345.80
M. D. 10	..	1	12,287.96
M. D. 31	1	..	583.89
I. D. 32	2	..	650.42
M. D. 36	1	..	798.89
I. D. 37	2	1	4,211.68
I. D. 38	2	..	1,446.20
M. D. 39	..	1	2,442.17
M. D. 40	2	..	1,487.79
I. D. 62	2	..	481.52
M. D. 65	1	..	186.25
I. D. 67	1	1	53,344.94
M. D. 69	1	..	3,084.42
M. D. 70	4	1	11,595.58
I. D. 71	..	1	7,912.43
M. D. 96	1	..	270.10
M. D. 100	3	..	1,468.09
M. D. 129	2	..	3,450.06
I. D. 130	1	..	397.96
M. D. 157	7	..	3,618.45
M. D. 159	3	1	16,964.63
M. D. 189	5	..	1,697.36
M. D. 190	6	..	2,129.09
M. D. 191	4	..	3,300.10
M. D. 214	1	..	570.72
M. D. 218	2	..	1,661.60
M. D. 221	2	..	933.32
M. D. 243	1	..	133.25
M. D. 244	2	..	1,112.51
M. D. 246	1	..	464.75
M. D. 248	2	1	4,356.13
M. D. 249	5	1	8,460.91
M. D. 250	5	..	4,418.64
M. D. 272	2	..	363.00
M. D. 273	1	..	444.45
M. D. 274	3	..	1,308.88
M. D. 275	1	..	483.79
M. D. 277	1	..	371.21
M. D. 278	1	1	5,782.95
M. D. 280	5	..	2,547.98
M. D. 281	6	1	7,282.73
M. D. 302	1	..	198.33
M. D. 303	1	..	219.40
M. D. 304	8	..	1,930.68
M. D. 305	2	..	253.40
M. D. 306	1	..	521.66
M. D. 307	1	..	612.84
M. D. 308	1	1	4,266.98
M. D. 309	3	..	1,602.93
M. D. 310	2	..	1,701.84
M. D. 311	1	2	28,727.58
M. D. 312	2	..	1,368.58
M. D. 332	4	..	1,492.76
M. D. 333	4	..	1,027.74
M. D. 334	2	..	334.00
M. D. 335	2	..	1,060.78
M. D. 338	5	..	1,257.44
M. D. 339	3	..	916.14
M. D. 340	6	..	2,184.07
M. D. 341	3	..	1,103.08
M. D. 342	6	..	1,868.56
M. D. 364	1	..	586.77

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M. D. or I. D.	No. Timber Bridges	No. Steel Bridges	Expendi- ture
M. D. 365	3	..	\$1,322.38
M. D. 366	5	..	941.11
M. D. 371	4	..	1,238.69
M. D. 392	1	..	1,049.76
M. D. 396	4	..	949.15
M. D. 398	3	..	1,585.63
M. D. 399	2	..	342.01
M. D. 400	4	..	1,011.51
M. D. 401	2	3	7,448.40
M. D. 426	1	..	1,757.69
M. D. 427	1	..	637.32
M. D. 429	4	1	4,141.70
M. D. 430	3	1	6,412.89
M. D. 431	4	..	2,244.11
M. D. 452	2	1	13,017.57
M. D. 455	1	..	351.06
M. D. 456	2	..	1,375.89
M. D. 458	2	..	1,706.59
M. D. 459	1	..	467.21
M. D. 460	1	..	907.63
I. D. 461	3	..	1,346.79
M. D. 481	1	..	942.98
M. D. 485	1	..	777.76
M. D. 488	3	..	2,123.88
M. D. 489	3	..	1,404.67
M. D. 490	1	..	741.90
M. D. 512	2	..	1,074.65
M. D. 513	1	..	429.01
M. D. 514	1	..	750.30
M. D. 515	4	..	2,418.24
M. D. 517	7	..	3,196.63
M. D. 519	3	..	1,433.21
M. D. 520	2	..	935.13
M. D. 521	3	..	1,015.80
M. D. 523	1	..	195.60
M. D. 541	..	1	13,483.18
M. D. 542	1	..	547.50
M. D. 543	5	..	2,054.06
M. D. 546	4	..	1,958.32
M. D. 548	1	..	1,255.94
M. D. 550	2	..	761.22
M. D. 551	4	..	1,436.75
M. D. 552	1	..	662.65
I. D. 553	1	..	398.30
I. D. 572	2	..	715.00
M. D. 575	3	..	1,147.86
M. D. 576	3	..	1,270.33
M. D. 577	7	..	3,110.54
M. D. 579	3	..	1,110.76
M. D. 581	2	1	3,985.16
M. D. 582	8	1	9,000.79
I. D. 603	3	..	9,752.20
M. D. 605	1	..	596.24
M. D. 606	1	..	405.34
M. D. 609	1	1	4,077.55
M. D. 610	2	..	6,032.10
I. D. 611	1	..	59.22
I. D. 635	2	..	826.40
I. D. 637	3	..	1,650.11
M. D. 638	2	..	1,770.69
I. D. 639	2	..	375.91
I. D. 668	1	..	398.47
I. D. 707	1	..	558.91
I. D. 732	1	..	194.21
I. D. 738	1	..	952.78
M. D. 739	10	..	2,225.46
M. D. 740	4	..	1,172.29

DEPARTMENT OF PUBLIC WORKS

M. D. or I. D.	No. Timber Bridges	No. Steel Bridges	Expendi- ture
I. D. 741	1	..	\$ 167.90
I. D. 764	6	..	2,174.58
I. D. 765	2	..	844.71
I. D. 770	4	..	1,883.27
I. D. 771	1	..	465.88
I. D. 794	1	..	154.21
I. D. 796	3	..	1,006.50
I. D. 801	2	..	1,214.57
I. D. 825	1	..	492.62
M. D. 829	1	1	6,101.29
M. D. 857	7	..	1,970.61
I. D. 858	2	..	439.63
I. D. 887	1	..	256.85
I. D. 946	1	..	119.10
I. D. 1124	1	..	864.36
	357	26	

M. D. 69 1 steel culvert installed 1,771.78

MAINTENANCE OF BRIDGES, 1924

M.D. or I.D.	No. Bridges	Expendi- ture
Indian Reserve	7	\$ 257.98
I. D. 4	2	926.10
I. D. 5	1	7.00
I. D. 6	2	611.28
I. D. 8	1	66.75
I. D. 9	4	709.65
M. D. 10	2	463.21
I. D. 38	5	239.70
M. D. 39	3	1,189.75
I. D. 62	1	52.96
I. D. 67	4	246.67
M. D. 68	2	25.19
M. D. 69	3	3,280.65
M. D. 70	6	833.11
I. D. 71	5	293.14
I. D. 91	1	62.95
I. D. 93	1	7.70
M. D. 98	1	46.00
M. D. 99	1	550.17
I. D. 100	1	132.29
I. D. 122	1	14.40
M. D. 128	1	1,421.47
M. D. 129	1	841.30
I. D. 130	2	403.21
I. D. 156	1	8.00
I. D. 159	3	578.98
I. D. 160	3	495.53
I. D. 161	1	335.18
I. D. 186	2	37.30
M. D. 189	1	67.00
M. D. 190	8	9,952.56
M. D. 191	2	266.35
M. D. 215	1	219.50
M. D. 217	1	169.70
M. D. 218	1	53.66
M. D. 219	1	1,151.69
M. D. 221	2	1,342.92
I. D. 222	2	510.55
I. D. 246	1	130.00
I. D. 251	1	514.27
M. D. 277	2	5,618.06
M. D. 278	6	505.08

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M.D. or I.D.	No. Bridges	Expendi- ture
M. D. 281	1	\$ 64.50
M. D. 308	1	58.97
M. D. 309	3	248.18
M. D. 311	1	964.05
M. D. 332	7	382.14
M. D. 339	1	44.50
M. D. 340	1	69.50
M. D. 371	2	501.27
M. D. 397	1	179.40
M. D. 398	1	362.00
M. D. 400	1	62.06
M. D. 422	1	557.99
M. D. 425	1	31.00
M. D. 427	1	139.44
M. D. 429	1	90.25
M. D. 451	2	1,209.13
M. D. 455	1	66.89
M. D. 457	1	100.00
M. D. 459	1	52.70
M. D. 460	1	45.00
M. D. 485	2	130.14
M. D. 515	1	420.91
M. D. 511	1	61.05
M. D. 514	1	70.00
M. D. 518	3	469.64
M. D. 519	1	20.00
M. D. 547	1	84.96
M. D. 549	1	189.15
M. D. 550	1	111.00
M. D. 551	1	170.00
M. D. 552	1	339.84
M. D. 553	1	154.00
M. D. 554	2	243.31
M. D. 577	1	235.50
M. D. 578	3	461.09
M. D. 582	9	2,792.80
M. D. 583	1	59.50
I. D. 584	1	35.50
I. D. 601	1	117.77
I. D. 602	2	38.80
I. D. 604	1	58.00
I. D. 609	2	69.55
I. D. 610	1	1,857.81
I. D. 612	1	25.60
M. D. 639	1	171.33
I. D. 641	5	356.35
I. D. 697	1	159.00
I. D. 730	1	107.00
I. D. 731	1	29.90
I. D. 738	1	8.50
I. D. 764	3	122.35
I. D. 829	1	193.32
I. D. 886	1	35.00
I. D. 887	1	71.00

SURVEYS BRANCH

EDMONTON, January 30, 1925.

J. D. ROBERTSON, ESQ.,
Deputy Minister of Public Works,
Edmonton, Alberta.

SIR,—

Herewith I have the honour to submit the following report for the year 1924.

Though still having only two parties in the field it will be noticed that the amount of work performed is very satisfactory, being actually in excess of the previous year's operations.

The number of plans submitted for examination and approval by municipal districts though slightly less than last year still maintains a high level and the number of titles issued on roadways surveyed for municipal districts is actually in excess of last year's figures.

Requests for surveys in unorganized districts show an increase over last year's requests, and it will be noticed that whilst the number of surveys completed during the year is in excess of the previous year, the number of requests carried forward is also greater than those of last year.

The number of surveys cancelled during the year shows a very large increase due to a great extent, I believe, to the dry season enabling road allowances to be opened which previously were impracticable. The wisdom of such cancellation in a good many cases is, in my opinion, somewhat questionable, as I am inclined to think that a number of these cancelled diversions may be required to be re-established if we have a succession of one or two wet seasons.

The decrease in the number of certificates of title received for roads outside of those for roads surveyed by municipal districts is accountable for by the fact that we are just beginning to feel the effect in this regard of the reduction in the number of survey parties engaged.

Subdivision plans submitted for approval are, as would be expected, fewer again this year than last.

The year 1924 saw the completion of the field work in connection with the survey of the Alberta-British Columbia Boundary, and it is expected that all returns will be compiled during the present year ready for ratification by the governments affected.

A summary of the work of the branch is attached hereto, as also reports of the District Surveyors covering the details of the work performed by them during the season.

I have the honour to be, Sir,

Your obedient servant,

P. N. JOHNSON,
Director of Surveys.

Surveys required and brought forward from 1923.....	722
Surveys asked for during 1924	236
Surveys made during 1924	113
Surveys carried over to 1925 schedule	735
Surveys made without instructions (included in the above figures) ..	20
Miscellaneous examinations made during 1924	8
Surveys cancelled during 1924	102
Plans submitted and examined on behalf of M. D.'s	276
Titles issued to roadways surveyed by M. D.'s	346
Plans prepared and filed in the Land Titles Office	216
Certificates of Title received for roads.....	232
Certificates of Title received for lands given for public purposes under Departmental regulations as to subdivisions	14
Certificates of Title to Public Buildings	9
Certificates of Title received for land other than surveyed roads (areas cut off by surveyed roads)	Nil
Transfers covering lands no longer required	222
Number of plans of subdivisions approved during 1924	14
Plans submitted by the Department of the Interior (Irrigation Branch) as affecting crossings of road allowances and surveyed roadways, and approved	20

Leases of Road Allowances

Number of new applications to lease road allowances	49
Number of new applications granted	25
Number of leases granted during the year 1924 (including free leases issued as compensation for surveyed roads).....	293

EDMONTON, December 20, 1924.

P. N. JOHNSON, ESQ.,
Director of Surveys,
Edmonton.

SIR,—

I beg to make the following report in connection with surveys during the year 1924:—

I organized my party in Edmonton and started work in the Alexander Indian Reserve on May 14. During the season I surveyed roads in the vicinity of Jarvie, Fawcett, Pakan, Bonnyville, Coronation, Veteran, Consort, Lacombe, Rocky Mountain House and Athabasca.

The weather conditions were generally favourable and fair progress was made. I disbanded my party on November 2.

Your obedient servant,

A. P. C. BELYEA,
District Surveyor and Engineer.

OLD COURT HOUSE, CALGARY,
December 16, 1924.

P. N. JOHNSON, ESQ.,
Director of Surveys,
Edmonton, Alberta.

SIR,—

I have the honour to submit, herewith, my annual report for the field season of 1924.

I organized my party of four men and assistant and left Edmonton for the Calgary District on May 19. Several examinations were made en route, and the party arrived at Nanton in the beginning of June.

Throughout the months of June and July the party was engaged in the survey of the road running southwest from Nanton to the south branch of Willow Creek, traversing a distance of about twenty-five miles. By reason of the wet weather during the month of June, the work was appreciably delayed.

From the Willow Creek district I moved into the country west of Claresholm, where I surveyed in the neighborhood of fifteen miles of new road.

I left the Claresholm district about the end of August and moved the party north to Priddis, making several small surveys by the way. At Priddis I commenced the survey of a new road from that point to Bragg Creek and completed the survey, approximately ten miles, during the last week of September.

I then moved northwesterly to the Calgary-Banff main highway, where several changes had been made in the original location, mainly in the vicinity of Morley and Cochrane.

After completing the survey of these changes, I moved into the Dog Pound Creek country, where a number of outstanding requests for surveys claimed my attention.

The weather increasing in severity about the beginning of November, I cut down my party by one man, stored part of my equipment and moved to Cochrane, where I made the survey of the Calgary-Banff main highway on the Cochrane Hill and several minor surveys in the neighborhood of Cochrane. This occupied me until November 19, when I reduced my party to one man and assistant. From this time until the middle of December I was occupied in making the survey of and tying in the Calgary-Banff main highway through the Morleyville Settlement, together with the survey of several gravel pits at various points on the highway. Owing to the extreme severity of the weather about the middle of December, I found it no longer economical to continue the field work.

The season, as a whole, was very favourable for field work and despite the fact that the work lay almost entirely in the rough country adjacent to the Rocky Mountains, good progress was made.

I am, Sir, your obedient servant,

A. CORMACK,
District Surveyor and Engineer.

ARCHITECTURAL BRANCH

EDMONTON, March 5, 1925.

J. D. ROBERTSON, Esq.,
Deputy Minister of Public Works,
Edmonton, Alberta.

SIR,—

I have the honour to submit my report of the activities of the Architectural and Buildings Maintenance Branch for the year ending December 31, 1924.

CAPITAL EXPENDITURES

MENTAL INSTITUTE AT OLIVER—Plans and details were prepared for the erection of a Superintendent's residence. This building is a seven-room cottage of stucco on metal lath and wood construction with shingled roof, hardwood floors and fir trimmed. The layout of the first floor consists of: General living-room, dining-room, reception hall, kitchen and pantry. The second floor consists of three bedrooms and bathroom, the same is equipped with fully modern conveniences including electric fire-place, electric range, laundry tubs, built-in cupboards in pantry and bathroom and is connected up by a tunnel bringing the heating pipes and electric wires from the power house.

The work was carried on by day labour under our regular foreman and was ready for occupation about November 1, 1924.

Considerable alterations were also done to No. 2 dormitory, such as: Making strong rooms, installing new bathrooms, in order to have the same ready for occupation of patients.

General repair work was also carried on in connection with the upkeep and maintenance of the various buildings at this institution.

MENTAL HOSPITAL AT PONOKA — Considerable alterations were done at this institution in connection with the kitchen, and to provide extra accommodation. A large amount of repair work was also done with respect to the upkeep and maintenance of this institution.

PROVINCIAL TRAINING SCHOOL, RED DEER — New verandahs and balconies were erected at this institution and a sewer line installed to connect up with the City of Red Deer. There was also playground equipment purchased for the use of the patients and the usual repair work necessary for the maintenance of this building.

COURT HOUSE, MACLEOD—Extensive alterations were carried on in connection with this building, in order to provide increased accommodation for law library, judges', solicitors' and witnesses' rooms. Work was performed by local day labourers.

COURT HOUSE, CALGARY—Considerable alterations were done to this building to provide extra accommodation for the Appeal Court and law library. Work being performed under the supervision of our local foreman.

INSTITUTE OF TECHNOLOGY AND NORMAL SCHOOL, CALGARY—Certain alterations were necessary to this building for the installing of new equipment for educational training.

PARLIAMENT BUILDINGS, EDMONTON—A small clubhouse was erected for the Civil Service Tennis Club, cost of which was borne by the Civil Service Association.

AGRICULTURAL SCHOOL, VERMILION—It was decided to reopen the building as an Agricultural Training School for British boys. This building had been vacant for a number of years. It necessitated general overhauling and repairing to the whole structure.

EXTENSION GARAGE, PARLIAMENT BUILDINGS—An extension was erected to this building 30 feet by 40 feet, a two-story structure of fireproof construction to provide for a machine repair shop and gasoline service station equipped with a new storage tank and pumps on the first floor, the second floor being devoted to storage of cars.

LIQUOR VENDOR STORE, JASPER—Plans and specifications were prepared and a contract let for a building to be used as a liquor vendor's store at this point.

ALBERTA LIQUOR CONTROL BOARD (VENDORS' STORES AND OFFICES)—Plans, specifications and contracts were prepared in this office for the fixing up and equipping vendors' stores throughout the province. Alterations were done to the Marshall-Wells Building for their office and warehouse. We also arranged for the leasing and renting of the various buildings required for this work.

GOVERNMENT CARPENTER SHOP—This shop was kept very busy throughout the year, manufacturing equipment, etc., required for the various public institutions and buildings.

GENERAL MAINTENANCE OF PUBLIC BUILDINGS AND INSTITUTIONS—This work consisted of a great deal of supervising and was looked after very carefully. It also involved a great amount of office work. The following is a list of buildings and offices under this branch: Parliament Buildings, Government House, Court Houses (12), Land Titles Buildings (2), Normal Schools (2), Agricultural Schools (6), Office Buildings, Outside offices (17), Police buildings and detachments (113).

All material necessary for caretaking supplies and repairs, coal and office equipment was ordered through this office, and something like 1,900 commitment orders issued, and 10,205 vouchers were passed during the year.

The following are the inside and outside staffs of this branch:

OFFICE STAFF—Buildings Superintendent, Superintendent of Power Plants, Chief Clerk, three clerks, one stenographer.

OUTSIDE STAFF—Caretakers (68), carpenters (15), plumbers (8), painters (8), electricians (4), engineers (25), firemen and labourers (20), gardeners (12).

Expenditures controlled by this Department Branch during 1924, were as follows:

Legislative and Departmental Buildings.....	\$313,575.25
Public Institutions	193,080.41
Government House	15,060.13

CAPITAL

Legislative and Departmental Buildings,	
Additions and Furnishings	22,187.01
Public Institutions and Furnishings	19,795.37
Mental Hospital, Oliver	21,016.89
Mental Hospital, Ponoka	20,567.95
Provincial Jail, Fort Saskatchewan	6,511.05
Normal School and Institute of Technology	11,842.77
Provincial Training School, Red Deer	12,460.90
Police-Buildings	4,978.19
Provincial Jail, Lethbridge	637.85
Parliament Buildings Power House	5,474.54
Court House, Macleod	7,570.60
Government Garage and Public Building Sites	4,464.30
Liquor Vendor Store, Jasper	5,005.49
Total	<u>\$664,228.70</u>

Your obedient servant,

D. E. McDONALD,
Superintendent of Buildings.

POWER PLANTS

EDMONTON, March 5, 1925.

J. D. ROBERTSON, ESQ.,
Deputy Minister of Public Works,
Edmonton, Alberta.

SIR,—

I have the honour to submit herewith a report of the activities of this office for the year ending December 31, 1924. All the power plants of the various government institutions in the province were placed under my supervision with the necessary authority to control expenditure on operation and maintenance, also supervise and direct operation. The various staffs consisting of twenty-six licensed engineers, twelve firemen and seven other various tradesmen, together with their plants, have been treated as one organization. Contracts covering coal and oil supplies were awarded in order to secure uniform quality and favorable prices.

FORT SASKATCHEWAN GAOL—The work of reorganizing the power plant which was commenced in 1923 was carried to conclusion. The 25 K.W. motor generator set was replaced by 50 K.W. in order to secure the gaol and the town of Fort Saskatchewan against possible power failure. The plant as it now stands is in excellent condition and properly maintained will give efficient service for several years. The changes in equipment and installation of the machinery was carried out entirely by the staff, no extra help of any kind being hired. The completed job is certainly a credit to the chief engineer and those under his direction.

MENTAL HOSPITAL AT OLIVER—The principal work here was completing various details not finished at the time of construction. In order to augment the water supply another well 293 feet deep was drilled. Water was found in fair quantities, and a pump has been installed, and connection to the water system. This gives us two producing wells at this institution. Two electric motors and various other equipment was installed at the farm for the Department of Agriculture. We also carried out some work for the Poultry Branch. A new motor and blower was installed at the sewage disposal plant which necessitated changes to the piping. All of this work was carried out by the regular members of the staff.

PARLIAMENT BUILDINGS POWER PLANT — A change of considerable importance was made in this plant. In order to permit the use of city current during the summer months one of the main units was removed and a 200 H.P. motor substituted; this arrangement made it possible to close down the boiler plant for three months and consequently the operating expenses were very considerably reduced. The heating main from the power plant to the Terrace Building was taken up and relaid over a different

route in order to secure better heating service, conservation of hot water returns and less loss from radiation, all of which was accomplished in a satisfactory manner. The cost of operating the plant has been reduced 35 per cent.

PONOKA MENTAL HOSPITAL—The principal work here during the year was general operation and maintenance; everything possible was done to tune up the entire plant in order to keep coal and water consumption down to a minimum. In spite of the fact that a large new wing was added in the fall of 1923, the coal consumption for 1924 was slightly less than previous years. Two new water wells were drilled to supplement the diminishing water supply; one proved almost dry, the other has a splendid supply. In order to facilitate the general repair work some machine tools were installed: a lathe, a drilling machine, and a motor driven pipe threading machine were purchased. These machines will not only expedite work previously done in outside shops but will also cut down the cost of such work.

INSTITUTE OF TECHNOLOGY, CALGARY — In addition to the regular operation and maintenance of this plant a start was made to properly equip the engine room in accordance with the demands of an institution of this kind. The generating set removed from the Parliament Buildings power plant was shipped to Calgary, and has been re-erected by the students of the steam engineering class under the supervision of the chief instructor, Mr. R. M. Dingwall. In order to make this set conform to the requirements of the institution an alternator was purchased with the necessary switchboard equipment; this is being erected by the students in electrical engineering class under the supervision of Mr. J. Ross. A travelling crane was also purchased, and is being erected by the students.

LETHBRIDGE GAOL—Apart from the general maintenance and operation very little work was carried out. Some small machine tools were purchased to facilitate general repair work. A new power line was run to the Dominion Experimental Farm in order to permit the installation of electric meters. This proved a good move, as there is considerably more revenue received now from this source. I am happy to report that the work throughout the year has run very smoothly indeed. The services in all the institutions have been of a very high order. No failures of any kind were reported, even during the extremely cold weather in the fall. This, I feel, speaks highly for the loyalty and ability of the men whose duty required them to maintain services continuously without the slightest interruption often under very trying condition. In addition to the work set out above, my services were required by the Board of Public Utility Commissioners to conduct investigations into municipal utility matters coming before the Board. These investigations concerned the city of Red Deer, town of Camrose, the town of Coleman, and the town of Taber. A considerable amount of time was also spent gathering and digesting engineering data concerning the Spray Lakes Power Project.

Respectfully submitted,

VERNON PEARSON,
Superintendent of Power Plants.

ACCOUNTANT'S BRANCH

EDMONTON, March 5, 1925.

J. D. ROBERTSON, ESQ.,
Deputy Minister of Public Works,
 Edmonton, Alberta.

SIR,—

As Accountant of the Department of Public Works, I have the honour to submit my report for the year ending December 31, 1924.

There was a very considerable increase in the detail work of the Branch as compared with that of the previous year. The total number of vouchers passed to the Audit Department, including Revenue and Improvement Districts, Trust Account "A" vouchers, being 27,403—an increase of over 5,000 vouchers over the total for 1923. It may also interest you to know that this Department handled 4,587 vouchers over and above the total passed by all other Departments together.

The number of cheques issued by the Branch in payment of Improvement District Trust Account "A" vouchers was 9,549, from Imprest Accounts 221, and Suspense Account 33, a total of 9,793 and an increase of 4,968 as compared with the total of the previous year.

There were issued from the Branch during the year accounts to the number of 547 for gas and oil supplied from the Government Garage to other Departments and to officials of the Government.

The various ledgers Control and Subsidiary were duly brought into balance with the statements of the Audit Department.

The total amount of moneys received during the year and deposited with the Provincial Treasurer were: \$95,807.18 Income, and \$22,034.29 Capital, details of which are as follows:

INCOME

<i>Surveys Branch—</i>	
Leases of road allowance and subdivision fees.....	\$1,069.50
<i>Bureau of Labour—</i>	
Theatres Act, Moving Picture Operators' Licenses.....	1,610.00
Steam Boilers Act, Examination Fees, Inspectors' Licenses, Plates, etc.	27,780.13
<i>Government Employment Bureau—</i>	
Subvention Employment Co-ordination Act.....	11,905.95
<i>Public Institutions—</i>	
Sale of Produce, Electric Current, etc.....	48,387.55
<i>Miscellaneous—</i>	
Sale of Material, Refunds, etc.....	5,054.05
	\$95,807.18

CAPITAL

Surveys Branch—

Surveys and Compensation for Lands.....	\$2,817.89
School for Mentally Deficient Children, Edmonton South..	1,071.43

Miscellaneous—

Sale of Material, etc., Adjustments and Transfers..	18,144.97
	<u>\$22,034.29</u>

The total amount of tax receipts deposited during the year to the credit of Improvements District Trust Account "A" was \$520,260.58, and this amount together with the balance brought forward from the previous year—\$605,268.68, bank interest \$28,299.87, and reimbursements \$8,926.21—made a total of \$1,162,755.34 available for the year. Of this amount there was expended \$466,040.24, leaving a balance of \$696,715.10 to be carried forward to the year 1925.

Details of Receipts to and Expenditure from Improvement Districts Trust Account "A" are included in the Public Accounts report for the year.

An amount of \$40,000 charged by the Department of Municipal Affairs for the cost of administration of the account is included in the total expenditure.

The staff of the Branch consists of the accountant, assistant accountant, and seven clerks and one junior clerk.

Respectfully submitted,

T. S. S. DAVIES,
Accountant.

CORRESPONDENCE BRANCH

EDMONTON, January 14, 1925.

J. D. ROBERTSON, ESQ.,
Deputy Minister of Public Works,
 Edmonton, Alberta.

SIR,—

I have the honour to submit the Annual Report of the Correspondence Branch of the Public Works Department for the year ending December 31, 1924.

LETTERS RECEIVED		
Branch—		Number
Architects, Highways and Bridges		65,869
Labour Bureau		15,891
		<u>81,760</u>

LETTERS SENT		
Branch—	Number	Postage
Architects, Highways and Bridges.....	50,185	\$1,525.00
Labour Bureau—		
Letters	9,170	
Circulars	13,390	23,560
	<u>73,745</u>	<u>850.45</u>
		<u>\$2,375.45</u>

Total number of communications	154,505
Number of registered letters received	811
Number of registered letters sent	4,235

CASH RECEIVED	
Branch—	
Labour Bureau	\$39,623.90
Architects	50,228.63
Accountants	62,145.13
Surveys	4,325.53
	<u>\$156,323.19</u>

Entries in Cash Book, 4,509.

Respectfully submitted,

W. T. AIKEN,
Chief Correspondence Clerk.

INSTITUTIONS

PROVINCIAL GAOL

FORT SASKATCHEWAN, January 21, 1925.

J. D. ROBERTSON, ESQ.,
Deputy Minister of Public Works,
Edmonton, Alberta.

SIR,—

I have the honour to submit herewith the eleventh annual report of the Provincial Gaol, Fort Saskatchewan, for the year ending December 31, 1924, together with the financial report and gaol statistics.

The daily average population was 161.7, a decrease of 22.8 from last year.

We had, I regret to say, one death during the year, one female prisoner, a Mrs. McMahon, having been brought in a state of semi-collapse due from drinking "canned heat," from which she never rallied. Outside of this the general health of the prisoners has been very good.

We had six escapes during the year, but I am pleased to note, however, that all were recaptured within a few hours.

The revenue obtained this year has been very gratifying, being the highest yet in the annals of this institution.

Again with your permission we enlarged our scope of extra-mural labour, and it is largely due to this that our source of revenue has increased.

Our vegetable crop this year was not up to the average, and we threshed only 8,027 bushels; this decrease is owing to 55 acres of summer fallow, a policy which I think will be advisable to pursue even more largely, as our land has been so far over-worked. We also broke 15 acres on the home farm.

Our proportion of road work extending from Belmont to Scotford was well attended to this year, but I think it would be an advantage to put in several culverts between Belmont and Fort Saskatchewan this present year.

I shall have to ask your permission to build in 1925 a hog house, and at least five portable granaries, the present location being at the end of the store room, causing an over-running of mice through the stock of flour and dry goods.

In conclusion I have much pleasure in thanking you for the unvarying interest and support you have given me during the past year, and also to thank my present staff for their loyalty and co-operation in the work.

I have the honour to be, Sir,

Your obedient servant,

W. BLYTH,
Warden.

MALE PRISONERS ADMITTED AND DISCHARGED IN 1924

Month—	Admitted		Discharged	
	Com.	Sent.	Com.	Sent.
January	12	35	15	26
February	13	30	11	25
March	12	25	16	28
April	16	38	14	27
May	15	42	14	25
June	9	42	9	34
July	14	56	10	47
August	10	34	8	43
September	11	40	9	40
October	13	48	18	32
November	10	42	14	42
December	9	43	5	54
	144	475	143	443

Prisoners in Gaol December 31, 1923	Com.	Sent.
Prisoners admitted during year 1924	9	81
	144	475
	153	556
Prisoners discharged during year 1924	143	443
Prisoners in Gaol December 31, 1924	10	113
Total number of Prisoners in Gaol December 31, 1924		123

DISCHARGES DURING YEAR

Time expired	348
Out for trial	132
Paroled	43
Released on bail	17
Paid fine	14
Out as witnesses	5
Transferred to asylum	4
Transferred to penitentiary	4
Transferred from committed to sentenced	4
Deported	4
Transferred to hospital	3
By order of doctor	2
Transferred to Provincial Police	1
By order of Deputy Minister of Public Works	1
To Children's Shelter	1
Appeals	1
Conviction quashed	1
Sentence reduced	1
	586

CIVIL STATE

Single	316
Married	146
Widowed	13
	475

DEPARTMENT OF PUBLIC WORKS

RELIGION OF PRISONERS

Roman Catholic	149
Greek Catholic	76
Church of England	65
Presbyterian	55
No Church	40
Methodist	38
Lutheran	28
Baptist	9
Mohammedan	2
Salvation Army	2
Congregational	2
Hebrew	2
Chinese	2
Moravian	1
Quaker	1
New Jerusalem	1
Hindoo	1
Seventh Day Adventist	1
	<hr/>
	475

COUNTRY OF BIRTH

Canada	188
United States	69
Austria	54
England	38
Scotland	23
Ireland	21
Russia	17
Norway	6
Sweden	6
Poland	6
Galicia	4
Denmark	4
Belgium	3
India	3
Ukraine	3
Wales	3
Holland	2
Italy	2
China	2
France	2
Germany	2
Bulgaria	2
Isle of Man	2
Syria	2
Servia	2
Iceland	1
Finland	1
Bukowina	1
South Africa	1
Australia	1
Yukon	1
Roumania	3
	<hr/>
	475

HABITS

Temperate	225
Total Abstainers	145
Intemperate	105
	<hr/>
	475

CONVICTIONS UNDER THE LIQUOR ACT.

Alberta Liquor Act	142
Inland Revenue Act	29
	<hr/> 171

FEMALE PRISONERS ADMITTED AND DISCHARGED IN 1924

Month—	Admitted		Discharged	
	Com.	Sent.	Com.	Sent.
January	0	3	0	5
February	3	10	0	8
March	0	9	3	5
April	0	3	0	6
May	1	5	1	5
June	4	5	2	6
July	1	6	0	6
August	0	1	2	5
September	3	5	4	4
October	0	10	0	6
November	1	11	0	8
December	0	5	0	10
	<hr/> 13	<hr/> 73	<hr/> 12	<hr/> 74
			Com.	Sent.
Prisoners in Gaol December 31, 1923			0	17
Prisoners admitted during year 1924.....			13	73
			<hr/> 13	<hr/> 90
Prisoners discharged during year 1924			12	74
			<hr/> 1	<hr/> 16
Prisoners in Gaol December 31, 1924.....				
Total number of Prisoners in Gaol December 31, 1924.....				17

DISCHARGES DURING YEAR 1924

Time expired	55
Out for trial	8
Out on bail	4
Out as witnesses	3
Paroled	3
By order of doctor	3
Hospital	2
Deported	2
Transferred to R.C.M.P.	1
Paid fine	1
Died	1
Sentence reduced	1
Asylum	1
With Inspector of Delinquent Children	1
	<hr/> 86

PROVINCIAL GAOL

LETHBRIDGE, January 16, 1925.

J. D. ROBERTSON, ESQ.,
Deputy Minister of Public Works,
Edmonton, Alberta.

SIR,—

I have the honour to submit herewith the fourteenth annual report of the Provincial Gaol at Lethbridge for the year ending December 31, 1924, together with the statistics of the gaol population and financial report, and my comments thereon.

The daily average for the year was 122.157, being an increase of 11.425 over 1923. The sanitary conditions of the gaol have been good and the general health of prisoners fair.

There were no deaths during the year. There were three escapes, all of whom were captured within a few hours, and their sentences increased by thirty days in each case.

Our farming operations have been fairly successful, although it was a dry season and the crop on the non-irrigated land was not very good; 17,149 bushels of grain were threshed, 625 tons of alfalfa and timothy hay were cut. The root crop was of fine quality, but the yield per acre not as heavy as last season; the corn and sunflower crop being above the average enabled us to put up 230 tons of fine ensilage.

Our building operations have given work to many prisoners during the year, having rebuilt $2\frac{1}{4}$ miles of Page fence, constructed 1,800 feet of main irrigation canal having over five foot fill. A cement smoke house, a cement pit silo, a bridge and flume across the main C.P.R. canal have also been constructed, the latter enabling us to irrigate 110 acres of the dry land.

We set out 4,000 trees around the lake and on the west side of the farm. Have worked 448 men days and 107 team days, and hauled 110 loads of cinders on to the main road leading to Lethbridge. We also hauled 700 tons of coal with gaol teams from the Federal Mines.

You will note in financial report that the expenditures have been reduced over \$10,000 and the revenue increased \$10,000 over 1923 report. By this saving we have changed our per capita cost from \$309.10 in 1923 to \$177.63 in 1924. This increase of revenue and reduction in expenditure is most gratifying and is much greater than I promised.

I would recommend that we be allowed to build a machinery shed for farm implements and a storage granary; these buildings are much needed.

You will note that this institution paid \$1,213.25 for maintenance of prisoners at Blairmore, Alberta Police Barracks, although at no time during the year was this institution overcrowded.

I wish to express the thanks of the employees of this institution for the many courtesies extended to us during the year.

I have the honour to be, Sir,

Your obedient servant,

HARRY A. DRIGGS,
Warden.

PROVINCIAL GAOL, LETHBRIDGE
PER CAPITA COST (AVERAGE POPULATION 122.157) FOR YEAR ENDING DECEMBER 31st, 1924

Classification	Stock on Hand December 31, 1923	Expenditure	Farm Products Used	Total	Less Stock on Hand, Decem- ber 31, 1924	Net Cost
Salaries .....	.....	\$ 18,128.61	.....	\$ 18,128.61	.....	\$ 18,128.61
Subsistence (Flour, Groceries, etc.) .....	.....	3,216.13	.....	5,033.08	665.79	4,367.29
Clothing and Uniforms	2,761.10	2,179.78	.....	4,940.88	1,925.55	3,015.33
Boots and Shoes	951.15	191.88	.....	1,143.03	712.08	430.95
Farm and Garden	34,170.53	6,026.92	\$ 5,408.67	45,606.12	35,267.15	10,338.97
Drugs and Medicines	50.00	224.11	.....	274.11	100.00	174.11
Laundry and Cleaning	404.11	420.85	.....	824.96	165.41	659.55
Office Expenses	38.75	841.86	.....	880.61	247.75	632.86
Discharged Prisoners' Transportation .....	.....	1,819.00	.....	1,819.00	.....	1,819.00
Automobile, Toilet, Officers' Mess, Prisoners' Mess, etc.	3,512.27	1,630.95	.....	5,143.22	5,082.76	-60.46
Power Plant						
Salaries and Wages .....	.....	7,516.85	.....	7,516.85	.....	7,516.85
Oils and Supplies	2,273.74	1,064.07	.....	3,337.81	1,827.17	1,510.64
Steam Coal and Freight	700.13	1,835.97	.....	2,536.10	100.30	2,435.80
Freight on Supplies .....	.....	38.76	.....	38.76	.....	38.76
Water .....	.....	482.75	.....	482.75	.....	482.75
Insurance .....	.....	94.50	.....	94.50	.....	94.50
Maintenance .....	.....	1,330.93	.....	1,330.93	.....	1,330.93
Total	\$46,678.73	\$47,043.92	\$ 5,408.67	\$99,131.32	\$46,093.96	\$53,037.36
Net Cost						
Less Revenue	\$53,037.36	Yearly Net Cost per capita.....\$177.63				
Less Farm Products	24,504.34	Daily Net Cost per capita.....4866				
Less Maintenance	\$ 5,408.67	Cost of maintenance of daily average of 2.5 prisoners at Blairmore				
	1,425.43	Police Barracks, \$1,213.25.				
	6,834.10	Yearly Net Cost per capita.....\$485.3				
	\$21,698.92	Daily Net Cost per capita.....1.33				

DEPARTMENT OF PUBLIC WORKS

PRISON POPULATION, 1924

Month—	Daily Average	Admitted		Discharged	
		Com.	Sent.	Com.	Sent.
January	116.161	6	30	7	33
February	119.07	4	37	3	36
March	116.9	4	33	4	38
April	104.7	4	26	4	46
May	89.806	4	29	4	23
June	105.63	6	50	6	34
July	130.00	4	79	4	46
August	134.677	1	65	3	86
September	122.73	7	48	4	55
October	138.5	5	90	9	51
November	156.53	4	45	3	79
December	131.19	7	79	3	70
Average for year	122.157	Total 56	611	54	597
Total number of prisoners admitted during 1924					667
Total number of prisoners discharged during 1924					651
				Com.	Sent.
Prisoners in Gaol December 31, 1923				5	117
Admitted during 1924				56	611
				61	728
Discharged during 1924				54	597
				7	131
Total number of Prisoners					138
Served previous sentence at Provincial Gaol					94

DISCHARGES

Discharged by expiration of sentence	518
Fine paid	10
Paroled	21
Deported	20
Order of Court	13
Order of Secretary of State	2
Order of Immigration Department	4
Order of Gaol Surgeon	3
Released on bail	3
Transferred to Ponoka	4
Released, case dismissed, etc.	45
Conviction quashed	1
Hospital	4
Order of Attorney General	2
Order of Governor General	1
	651

AGE OF PRISONERS

Under twenty years	95
Over twenty and up to thirty years	239
Over thirty and up to forty years	174
Over forty and up to fifty years	108
Over fifty and up to sixty years	34
Over sixty and up to seventy years	15
Over seventy years	2
Particulars not taken .....	..
Total	667

NATIONALITY

Place of Birth

British—

Canada	256
England and Wales	97
Scotland	51
Ireland	32
India	2
New Zealand	1

Foreign—

United States	103
Russia	12
Austria	24
Italy	8
China	8
Roumania	9
Belgium	6
Serbia	1
Poland	5
Germany	7
Sweden	12
France	6
Greece	1
Norway	6
At Sea	1
Japan	1
Holland	2
Denmark	2
Czecho-Slovakia	1
Hungary	1
Finland	9
Chili	1
South America	1
Switzerland	1

 667

CIVIL STATE

Single	520
Married	133
Widowed	14
Particulars not taken .....	..

 667

EDUCATION

Can read and write English	543
Cannot read and write English	124

 667

RELIGION

Roman Catholic	210
Presbyterian	105
Church of England	99
Methodist	39
Greek Catholic	32
Protestant	50
Lutheran	51
Baptist	17
Chinese	8
Christians	8
Free-thinker	2
Hebrew	4
Seventh Day Adventist	1
None	29
Congregational	6
Divine Healing	1
Mormon	1
Mennonite	3
Particulars not taken	1
	<hr/>
	667

SOCIAL HABITS

Total abstainers	1
Temperate	365
Intemperate	301
	<hr/>
	667

SENTENCES

Under thirty days	48
Thirty days	231
Thirty days to under two months	115
Two months	65
Over two months to three months	46
Over three months to four months	4
Over four months to six months	60
Over six months to nine months	4
One year	19
One year to eighteen months	7
Two years less 1 day	7
Two years less 10 days	1
Held for deportation	2
Committed for trial	27
Remanded	30
Insane	1
	<hr/>
	667

CRIMES

Crimes against Religion and Morals

Vagrancy	137
Seduction	3
Indecent act with male	
Buggery	1
Carnal knowledge of girl under 14	2
Bigamy	2
Keeping disorderly house	2
Corrupting morals	1
Incest	1
Frequenting bawdy house	1
Indecent exposure	2
	<hr/>
Total	152

Crimes against the Person

Murder	3
Assault	21
Assault causing grievous bodily harm	8
Indecent assault on male	1
Attempted murder	1
Neglecting to provide for wife	1
Unlawfully wounding	3
Indecent assault	5
Attempted suicide	1
Indecent assault on female	1
Using threatening language	1
Pointing gun	1
Robbery	2
Attempted suicide	1
Robbery with violence	2
Total	52

Crimes against Property

Theft	109
Fraud	9
Forgery	14
Arson	6
False pretences	17
Breaking and entering	18
Receiving stolen property	2
Horse stealing	5
Wilfully destroying	1
Killing cow	4
Possession of stolen goods	1
Receiving stolen money	1
Cattle stealing	1
Total	188

Crimes against Public Order, Law and Justice

Intoxication	149
Carrying concealed weapon	3
Drunk in charge of car	2
Using insulting language in public place	1
Possession of housebreaking tools	2
Carrying revolver	4
Using obscene language	1
Resisting arrest	1
Soliciting alms	2
Perjury	1
Impersonating police officer	1
Creating disturbance	1
Total	168

Crimes against Any Other Act

Breaking Liquor Act	25
Breaking Railway Act	45
Breaking Immigration Act	10
Breaking Drug Act	5
Breaking of Indian Act	5
Breaking Inland Revenue Act	13
Held for deportation	1
Insane	1
Held for observation	1
Mentally deficient	1
Total	107

OCCUPATION

Miners	65	Electrician	3
Labourers	271	Boiler Maker	2
Cooks	21	Orderly	1
Motor mechanic	1	Rooming house keeper.....	1
Tailors	5	Taxi-driver	2
Mechanics	14	Book-keeper	2
Painters	7	Shoemaker	4
Teamsters	13	Paper maker	1
Salesman	10	Accountant	1
Farmer	51	Baker	1
Transfer driver	2	Brakeman	1
Blacksmith	6	Lineman	1
Printers	6	Crane operator	1
Showman	1	Steel worker	1
Gas engineers	3	Butcher	2
Waiters	9	Steam fitter	1
Riveters	1	Bootlegger	1
Fireman	12	Laundry worker	1
Physical instructor	1	Contractor	2
Carpenter	8	Reformatory boys	1
Engineer	7	Welder	1
Lumberjacks	14	Fitters	1
Schoolboy	1	Storekeeper	1
Logger	19	Wool spinner	1
Cowboy	1	Machinist	3
Gardener	1	Rigger	1
Barber	4	Student	1
Soldier	1	Bricklayer	1
Tinsmith	1	Veterinary surgeon	1
Dairyman	1	Weaver	1
Ranchers	5	Mill worker	1
Cement finishers	2	School teacher	2
Switchman	3	Peddler	2
Clerks	7	Janitor	1
Merchant	1	Civil engineer	1
Shepherd	2	Plumbers' help	1
Plumber	3	Watchmaker	1
Saw filer	2	Millwright	1
Musician	1	Saddler	2
Journalist	1	Well driller	1
Mine manager	2	Iron turner	1
Chemist	1		
Grocer	1		
Seaman	8		
		Total.....	667

